

ABSTRACT OF THE DISCLOSURE

An optical resonator comprises: a transparent lower substrate for light penetration; a plane mirror formed at one surface of the lower substrate; an upper substrate coupled to the lower substrate with a certain gap; a concave mirror formed at one surface of the upper substrate for forming a resonance cavity of a hemispherical shape with the plane mirror; and a micro actuating means for controlling a gap of the resonance cavity. Disclosed are the micro optical resonator capable of minimizing an insertion loss due to an alignment error of an optical fiber system and tuning a wavelength of a output optical signal so as to efficiently obtain an output optical signal having a predetermined narrow bandwidth from an input optical signal having a broad bandwidth, a fabrication method of a micro concave mirror thereof, and an optical filter using the same.